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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/604,400

07/17/2003

Eric T. KOOL

12665.0024.NPUS01

1399

23369

7590

03/13/2007

HOWREY LLP

C/O IP DOCKETING DEPARTMENT

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EXAMINER

STRZELECKA, TERESA E

ART UNIT

PAPER NUMBER

1637

MAIL DATE

DELIVERY MODE

03/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/604,400

Applicant(s)

KOOL, ERIC T.

Examiner

Teresa E. Strzelecka

Art Unit

1637

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 1/10/07 & 2/21/07 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 6 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: 40-49.
Claim(s) objected to: 15.
Claim(s) rejected: 1-14.
Claim(s) withdrawn from consideration: 16-39.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☒ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

Teresa Strzelecka
3/8/07

Teresa E Strzelecka
Primary Examiner
Art Unit: 1637

Continuation of 11. does NOT place the application in condition for allowance because: The enclosed declaration of Dr. Eric Kool obviated the rejections of claims 1-7, 9 and 11-15 under 35 U.S.C. 102(a) as anticipated by Sando et al., the rejection of claims 40, 41, 44, 46 and 47 under 45 U.S.C. 103(a) over Sando et al., Tyagi et al. and Stratagene Catalog; and the rejection of claims 48 and 49 under 35 U.S.C. 103(a) over Sando et al., Tyagi et al. and Stratagene Catalog, in view of Seitz et al. Since claim 40 is allowable, the previously withdrawn dependent claims 42 and 43 are rejoined, making claims 40-49 allowable.

All of the other previously presented rejections are maintained. Applicant argues the interpretation of the claim terms as the basis for art rejections.

Regarding the term "fluorophore compound", Applicant argues that the "specification clearly describes a fluorophore compound" as a unimolecular entity, citing paragraph [0032], which states that "the molecule containing the fluorophore and the quenching group can be any molecule" and that Fig. 2 and 3 show single molecules. First, the statement that the fluorophore compound can be by "any molecule" does not imply that it is a single molecule. Further, as explained in the previous office action, these are not definitions of the term, in the sense that there is no statement in the specification of the following form: "The term 'fluorophore compound means...', 'the term 'fluorophore compound is ...' or 'The term 'fluorophore compound' refers to...". Therefore, the interpretation of the term as a unimolecular or multimolecular entity is the broadest reasonable interpretation in view of lack of its definition.

Regarding the interpretation of the term "leaving group", Applicant points to a description in paragraph [0035], which describes the term with respect to its function, not its structure. Again, as explained before, since most of the fluorescent dyes and quencher molecules possess ring structures, their electronic structures would facilitate nucleophilic attack on the bonds connecting them to their nucleic acid bases. Therefore, basically any fluorescent molecule inherently possesses this property.

Regarding the term "quenching", Applicant argues that is described in the specification, for example, in paragraphs [0019] or [0031]. However, there is no definition of this term in the specification. Any fluorescent acceptor molecule is a quencher, since it accepts energy from the donor. Further, as the quenching effect depends on the distance between two compounds and solution conditions, as well as on the degree of spectral overlap between the dyes, the degree of quenching for the same dye will change, therefore, it is a functional, not a structural, limitation.

Therefore, the rejection of claims 1-8, 10, 11 and 14 under 35 U.S.C. 102(b) as anticipated by Livak et al. and the rejection of claims 1, 5-7, 9 and 12-14 as anticipated by Xu et al. are maintained.